

CEO

City Engineer's Office

- Terrace Lake Road Project Completed
- Middle Road Improved
- WalkWorks 98

New 2nd Street Bridge

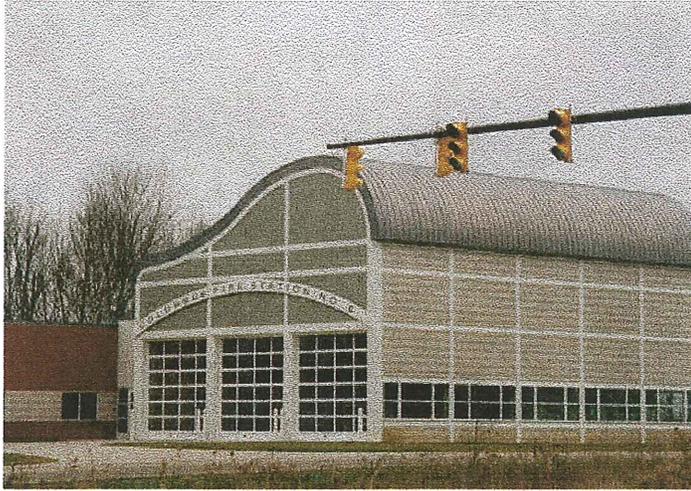
nearing completion



New Traffic Signals

When the new Fire Station No. 6 was dedicated in May, a new traffic signal was in place to assist the firefighters when exiting the station. The new signal was installed by Signal Construction, Inc. of Greenfield at a cost of \$36,000.

The Board of Public Works and Safety also opened bids in August for another new traffic signal along 450S at Old Lane, the



New traffic signal at Fire Station No. 6

primary entrance into the Woodside Industrial Park. Signal Construction, Inc. submitted the low bid of \$65,354. The signal was designed by Kloeker Engineering of Seymour. The signal installation is expected to be completed by the end of 1998. The signal is being installed in response to rising traffic volumes and increasing accident frequency.

The Indiana Department of Transportation installed a new signal at the intersection of 25th Street and Hawcreek Avenue last fall. The rising traffic volume on Hawcreek Avenue was cited as the primary factor in the decision to install the signal.

The Board of Public Works and Safety contracted with Kloeker Engineering in October to design a new traffic signal for the intersection of 27th Street and Central Avenue. The new signal would also be capable of being pre-empted to assist firefighters when leaving or returning to the nearby Fire Station No. 4. Kloeker and City Engineer Hayward have met several times with fire department staff and Cinergy staff to clarify their needs. The Board is expected to review the plans in January and decide whether or not to proceed with the project.

Traffic Count Map Available

The City Engineer's Office has developed a city-wide traffic count map. The map shows the number of vehicles which travel on each of our major streets on a typical day (24 hours). The map is a compilation of traffic counts which were completed by the City Traffic Department and INDOT during 1997 and 1998. The maps are available at the City Engineer's Office.

New Subdivision Streets Accepted

The construction of new subdivisions and new homes continued at a fast pace in 1998. The City accepted fewer new streets in 1998 than in previous years, but many new subdivision streets are currently under construction and will be ready for acceptance next year. Eight new streets were accepted by the City in four subdivisions while construction began in several other subdivisions. A total of 4,578 feet (0.87 miles) were added to the city's street inventory.

The streets and their lengths accepted by the city are as follows:

Creekview Subdivision

Creekview Drive	494
Creekview Court	1075

McCullough's Run Section 4

Brandermill Court	454
Kennesaw Court	456

Pintail Landing

Bayside Court	1030
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Terrace Woods Section 1

Pippen North	332
Pippen South	348
Terrace Grove	390

Wayfinding Project

New directional signs are expected to be installed on some of the City's major streets in 1999. The signs are a part of the wayfinding project, which has been planned since 1995. Trial signs were installed along 2nd Street, State Street, and Gladstone Avenue last summer for evaluation. The new signs will help guide visitors to schools, parks, the Visitors Center, and other popular destinations. New maps will also be coordinated with the sign system.

The sign system is being designed by Corbin Design of Traverse City, Michigan through a contract with the Chamber of Commerce Foundation. The project is funded by the Cummins Engine Foundation, Columbus Area Chamber of Commerce, Visitor Center, City of Columbus, and several local companies

Facts and Figures

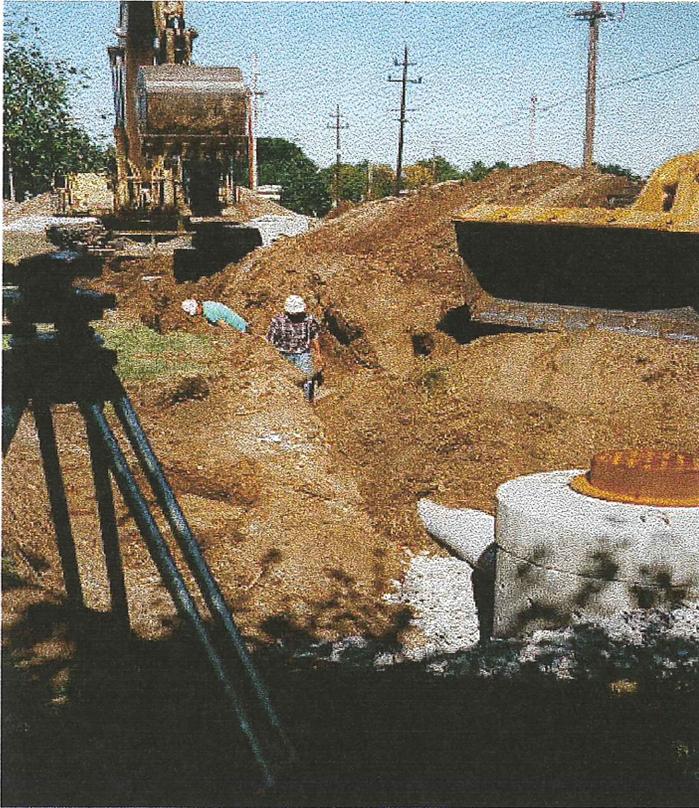
Miles of streets in Columbus	212.3
Miles of asphalt streets	203.0
Miles of concrete streets	9.3
New miles of streets this year	0.87
Number of traffic signals	24
Estimated number of traffic signs	12,756
Number of street cut permits 1998	221
Number of street or alley closings 1998	83

Employee Identification Program

In an effort to better identify members of the engineering staff, we began a uniform program this year. All staff members also have photo identification cards.

MIDDLE ROAD IMPROVEMENTS

In response to increasing traffic, the City continued to improve Middle Road this year. This year's project follows the extension of Middle Road in 1995 and precedes the widening of Rocky Ford Road scheduled to begin next year.



Slipforming curb and gutter on Middle Road project.

TEN MILES OF STREETS REPAVED

The City of Columbus opened bids for the repaving of approximately 10.25 miles of streets on June 16, 1998. The \$532,534 project was awarded to Milestone Contractors L.P.

The project included the reconstruction of several deteriorating industrial park streets, milling and repaving of two streets, and the usual treatment of many other streets. Milestone also raised manholes, water valves, and detector housings, installed underdrains along several streets, and repaired damaged curbs at a cost of \$89,608. The City also included the installation of thermoplastic pavement markings on each of the streets at a cost of \$14,657.

This year's project covered approximately 4.7%



of the City's total street mileage. That equates to a 21 year pavement life cycle. Asphalt pavement is usually projected to last 15 to 20 years between overlays.

Improvements have now been completed on the section of Middle Road north of Rocky Ford Road. The work was coordinated with the Breakaway Trails subdivision improvements.

Milestone Contractors L.P. was awarded the contract for the project on August 8, 1998. The cost of the project was \$322,516.

The project included the installation of curbs, new pavement, a storm drainage system, and an eight foot wide People Trail sidewalk on the west side.

The project was designed by SIECO, Inc.

Beginning next year, improvements will be made to Rocky Ford Road. The section between Central Avenue and Middle Road will be widened next year, followed by Middle Road to Marr Road in 2000, and Marr Road to Taylor Road in 2001. The improvements will include widening to four lanes, construction of curbs, and the installation of sidewalks.



EASTRIDGE MANOR STORM SEWER PROJECT

After more than a year of discussions, the Bartholomew County Drainage Board approved the plans for a new storm sewer along Rocky Ford Road. When the project is completed next spring, it will improve drainage along the northern section of Eastridge Manor. The new storm sewer will outfall into Sloan Branch, a regulated drain.

The city signed a contract with Central Indiana Contracting for the installation of 1423 feet of 24" pipe to be completed by March 16, 1999. The project is expected to cost \$63,761.

STORM SEWER MAPPING

In our effort to better manage our infrastructure, the City Engineer's office has been updating and consolidating its storm sewer maps. This effort, which has taken over a year to complete, is now nearing completion. When finished, the maps will be used to establish regular inspection and maintenance schedules.

CHESTNUT STREET TRUNK LINE DELAYED

The Board of Public Works and Safety opened bids for the extension of the Chestnut Street trunk line storm sewer on June 16, 1998. Kuhn Construction submitted the lowest of three bids.

The project included the extension of the storm sewer from 3rd Street to 5th Street. However, after reviewing budgets and remaining scheduled projects, the City Engineer recommended that the project be delayed until next year and that the bids be rejected. The Board concurred. The project is now scheduled for the summer of 1999.

Scenes like this were not uncommon on July 20 after a storm dumped up to ten inches of rain on Columbus. It was a very unusual storm which led to many inundated streets, flooded basements, and even the evacuation of a nursing home. In most cases, the water had subsided by the end of the day.

Our storm sewer systems are not designed for this type of storm. However, this storm did demonstrate the need for storm sewer improvements and some changes in our design standards.

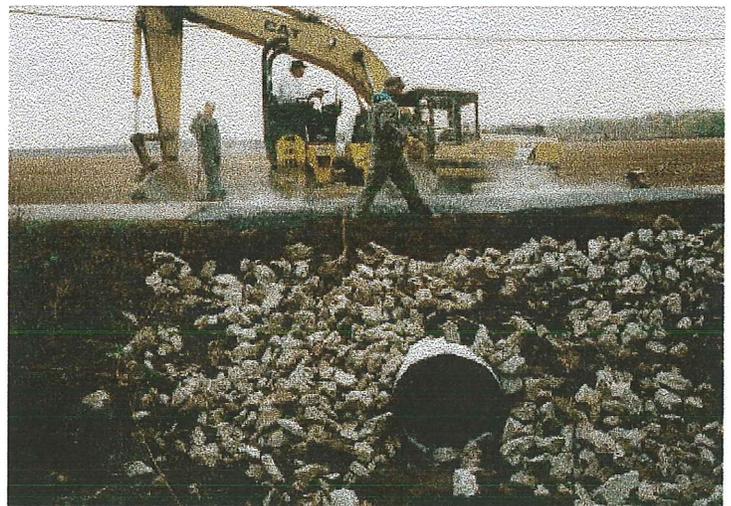
The good news was that our streets and storm sewers suffered very little damage from the flooding. The most serious damage was reported at the outfall of the 25th Street storm sewer behind the American Legion. Approximately 40 feet of 72 inch concrete pipe washed out along with approximately 400 square feet of the Legion parking lot. The repairs were completed by Milestone Contractors L.P. at a cost of approximately \$40,000.

MISCELLANEOUS DRAINAGE REPAIRS

The City awarded contracts totaling \$147,010.65 for miscellaneous drainage repairs and improvements through December 1. More repairs were anticipated in December. Most of the work was awarded to local contractors through a quote process.

The 1998 drainage repairs and improvements included the following:

New drywells	14
Repaired drywells	2
New inlets	7
Repaired inlets	31
Underdrains	160 lin. ft.
New pipe	490 lin. ft.
Repaired pipe	84 lin. ft.
Repaired curb	124 lin. ft.
Sidewalk repairs	378 sq. ft.
Pavement repairs	3680 sq. ft.
Curb Ramps	1
Culvert replaced	1



Culvert replacement project on Tellman Road.

WalkWorks 98 WalkWorks 98 WalkWorks 98 WalkWorks 98 WalkWorks 98 WalkWorks 98

The City's sidewalk replacement program, now in its seventh year, has replaced more than six miles of sidewalks. The program was established to encourage property owners to replace unsafe, deteriorated sidewalks and to build new sidewalks. Property owners pay \$6 per linear foot of sidewalk to be replaced or constructed.

WalkWorks 98 replaced 3,961 linear feet of sidewalk across 60 residential lots. The total cost of the program was \$77,823 with property owners contributing \$25,649. Also included in *WalkWorks 98* was the installation of 28 new curb ramps in conformance with the Americans with Disabilities Act.

WalkWorks is expected to continue in 1999 with applications due in February.

CurbWorks 97 Completed

In October, 1997, the City announced an incentive program to encourage the replacement of curbs in the historic district. The historic district is generally bounded by 2nd Street, Chestnut Street, 14th Street, and Washington Street. Property owners were required to pay \$10 per lineal foot of curb, about half of the cost. This was a pilot program which grew out of the successful *WalkWorks* program.

Seven *CurbWorks* applications were received and approved. A total of 332 feet of curbs were replaced by the project. Also included was the reconstruction of two curb radii including ramps.

The Board of Public Works and Safety opened quotes for the project on December 16, 1997. K & M Construction submitted the lowest quote in the amount of \$9,273. The work was completed in March. All available

funding was used for sidewalks in 1998, so applications for *CurbWorks* were not accepted. The availability of this program in 1999 will depend on the availability of funds after completion of the *WalkWorks* program.



Sidewalk replacement along 19th Street.

Big Year For Curb Ramp Construction

Whenever the City improves or repaves a street, it also installs new curb ramps to meet the requirements of the Americans with Disabilities Act (ADA). The ramps are easy to see; they are poured with a red pigmented concrete and are textured for use by the visually impaired.

In May, the City opened quotes for the installation of 106 new curb ramps along streets which were to be repaved. That work was completed by K & M Construction at a cost of \$45,734.

In November, the City awarded a second curb ramp project to Stoner's Concrete Finishing at a cost of \$2,850. That project, containing 3 new ramps, is expected to be completed by December 31.

Two ramps were also installed on the Middle Road project, and eight on the Terrace Lake Road project, one in conjunction with a drainage repair, twenty-eight in *WalkWorks 98*, and four in *CurbWorks 97*. That brings this year's total of new ramps to 152.



CurbWorks97 installation including new curb ramps.

STATE PROJECTS

New Second Street Bridge Nearly Complete

Despite being flooded several times, Milestone Contractors has nearly completed the new Second Street bridge. The \$10.4 million project is expected to carry traffic next May with project completion scheduled for August. During the winter months, the cables will be installed and the temporary falsework under the bridge will be removed.

The new bridge will carry eastbound traffic into the downtown area. The unique bridge was designed by J. Muller International.

Following the completion of the new bridge the existing Third Street bridge will be rehabilitated in 2000 to carry westbound traffic.

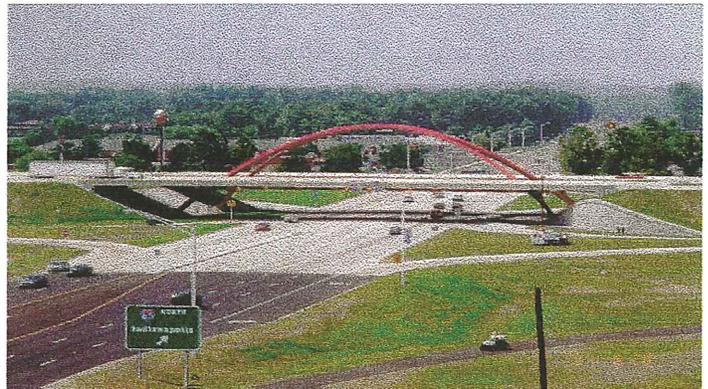


Milestone crew lifts the final support leg into place.

State Road 46 Resurfacing Begins



In August, the Indiana Department of Transportation opened bids for the resurfacing of State Road 46 through Columbus. The project included Washington Street between 11th and 25th and 25th Street between Washington and Talley Road. As of December 10, the work on 25th Street was nearly complete. Next spring the contractor will mill and repave Washington Street and 25th Street from Talley Road to State Road 9. Dave O'Mara Contracting of North Vernon is the contractor.



Committee Seeks Improvements to SR 46

The Front Door Committee is now focusing on the completion of SR 46 between SR 11 and I-65. This segment is the final phase of the Front Door Project. Construction of the \$6 million project is expected to begin in the next year. This phase includes the reconstruction of the deteriorated pavement, installation of lighting and landscaping, construction of sidewalks in the commercial area, and paving a People Trail on the north side of the highway.

National Road Project Receives Funding

In May, the City was notified that Congressman David MacIntosh had requested that a \$500,000 line item be included in the highway funding bill pending before Congress. That line item was approved in June. The funds were intended to be used to begin the engineering for the project. That amount is approximately half of the total amount needed for engineering. INDOT has not yet selected an engineering firm to design the project.

INTERCHANGE PROJECT RECEIVES ACCOLADES

The City has recently received notice of several awards for excellence in design and construction which the interchange project has received. On December 8 the project received the "Outstanding Achievement Award" from the Indiana Ready Mixed Concrete Association. The project also received a merit award from the National Steel Bridge Alliance and the American Institute of Steel Construction. On November 18 the Federal Highway Administration announced at the American Association of State Highway and Transportation Officials annual meeting that the project had been selected for an "Excellence in Highway Design Competition" award. The interchange continues to move traffic safely and efficiently.

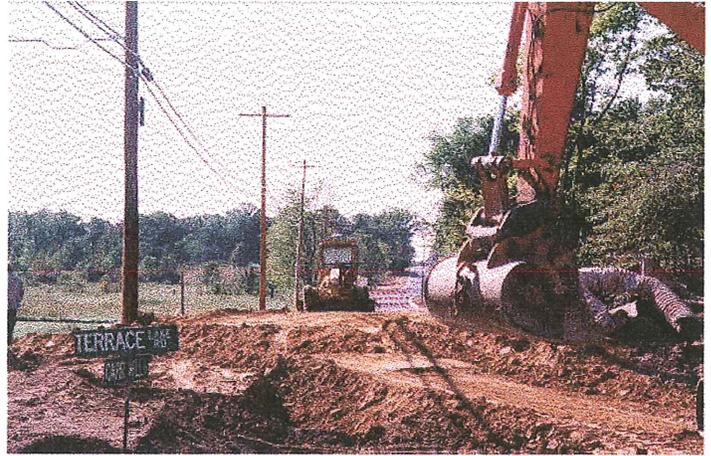
TERRACE LAKE ROAD CONSTRUCTION COMPLETED

On May 19, 1998, the Board of Public Works and Safety awarded a contract to Milestone Contractors for the final phase of the Terrace Lake Road Improvement Project. This phase of the project extended from North Wood Lake Drive to Shields Drive. The total cost of this phase was \$917,600.00.

The project included widening the street by ten feet, the installation of curbs, the installation of a sidewalk on one side of the street, building retaining walls, and drainage improvements. Although the bids were opened in May, construction did not begin until August due to wet weather. The work was completed in December.

The entire project, between Road 200S and Shields Drive, was designed by SIECO, Inc. The project included filling several valleys, cutting several hills, widening the pavement, installing curbs, building retaining walls, and constructing sidewalks. SIECO, Inc. also acquired the rights-of-way for the project.

The project was divided into two phases which were constructed during 1997 and 1998. The total construction cost of the project was \$1,438,400.00. Both phases were constructed by Milestone Contractors L.P.



Intersection of Terrace Lake Road and Carr Hill Road during construction.

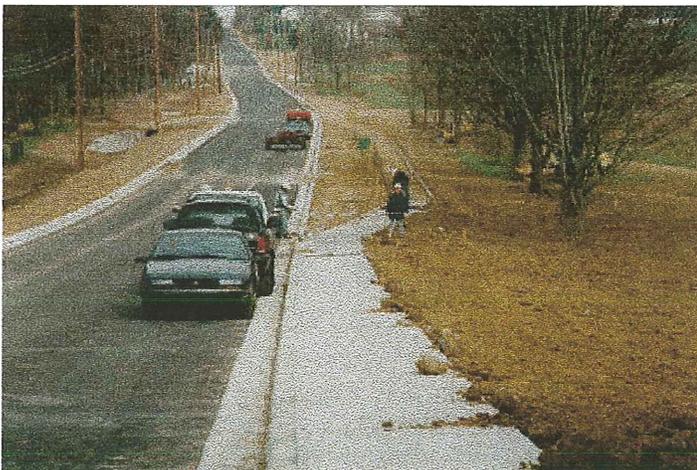
The \$520,800.00 construction contract for the first phase of the project was awarded to Milestone Contractors on July 15, 1997.

The northern section of Terrace Lake Road, from Shields Drive to Goeller Boulevard, was reconstructed in 1983 by Contractors United, Inc. The project was designed by Columbus Surveying and Engineering.

The design and construction of the project was extremely challenging because of the elevation changes and the number of driveways along the road.



Ribbon cutting Wednesday, November 18, 1998



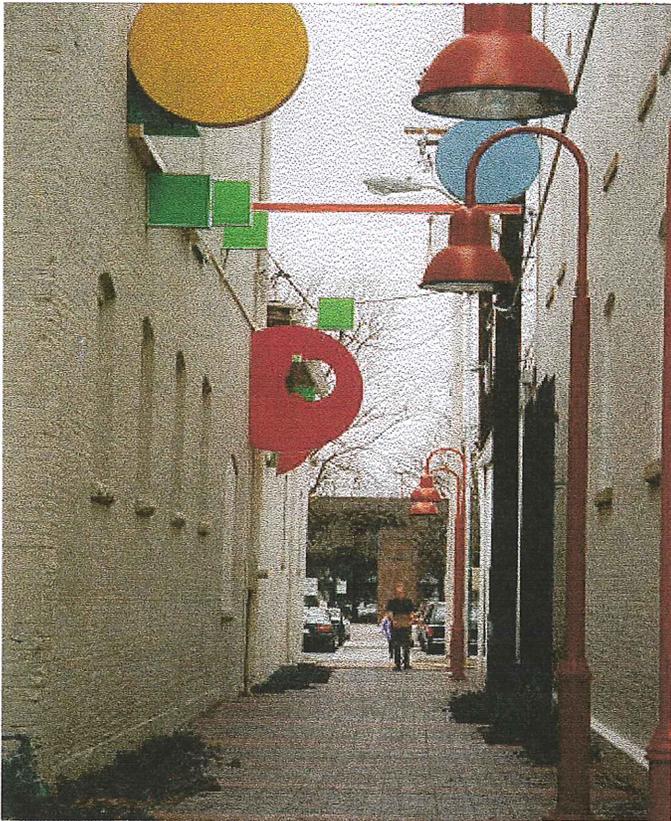
New sidewalks will provide a safe route for pedestrians.

CITY ENGINEERING STAFF

David Hayward	City Engineer
Steve Rucker	Assistant City Engineer
Randy D. Sims	Senior Engineering Technician
Rebecca Douglas	Technician
Shawn Plummer	Technician
Randy K. Sims	Technician
Calvin Gaither Jr.	Technician
Stacey Sanford	Part-time
Jason Carr	Part-time
Julie Webster	Part-time

Editorial

Where else besides Columbus, Indiana can a city engineer be involved in the design and construction of an award winning bridge project, a new fire station and Foundation for Youth designed by the country's top architects, and an artistic rehabilitation of an old downtown alley? All in one year too! Sure we have the normal street and drainage projects, even an occasional traffic signal project. These special projects "spice up" the job and keep things interesting.



The routine projects are important too. For instance, heavy rainfall this summer demonstrated the importance of our drainage systems. Just ask some of the people whose basements were flooded.

The city has grown so much that we can no longer rely on past management and maintenance practices. This year we have created a storm sewer map which can be used to develop a maintenance plan. We have also begun to enter data into our pavement management system which will provide a maintenance plan for our 215 miles of streets.

Columbus has a tradition of balancing the special projects with the routine needs of the community. Let's not lose our balance.

Looking Forward to 1999

The City Engineer's Office is looking forward to another very busy year in 1999. The top priority next year will be the improvement of Rocky Ford Road between Central Avenue and Candlelight Drive. This project will include widening the road to four lanes, construction of curbs and sidewalks, installation of a storm drainage system, and the installation of a traffic signal at Middle Road.

The City also plans to extend the Chestnut Street storm sewer between 3rd Street and 5th Street next year. That project will include the installation of a sixty inch diameter pipe and the total reconstruction of the street and curbs.

The City is currently preparing plans for a new traffic signal at 27th Street and Central Avenue and the nearby fire station. If approved by the Board of Public Works and Safety, the signal would be installed next year.

The Bartholomew County Commissioners are planning to re-open the bridge on Road 400N next summer which will require some work to the existing road which has been closed for several years.

The City is looking forward to the completion of the new Second Street bridge and to the completion of the State Road 46 re-paving.

The City's proposed Thoroughfare Plan should also be completed and presented to the Plan Commission and City Council next year. The plan will contain specifications for new streets and will outline and prioritize improvements to existing streets.

